



DISABLED ACCESS REGULATIONS FOR ALTERATIONS, REPAIRS & ADDITIONS B, M, F & S OCCUPANCIES

This booklet is to be used only as a general reference guide.
It is not intended to be a complete listing of all regulations.
Please refer to the actual law for completeness and accuracy.

Title 24 Part 2 Building
Title 24 Part 3 Electrical
Title 24 Part 5 Plumbing

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2001 California Building Code
2001 California Electrical Code
2001 California Plumbing Code
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A. APPLICATION CBC 1134B—Accessibility for Existing Buildings

All existing buildings and facilities, when alterations, structural repairs or additions are made to such buildings or facilities, shall comply with all provisions of New Buildings, except as modified by this section. These requirements shall apply only to the area of specific alteration, structural repair or addition and shall include those additional areas and facilities listed below:

- A primary entrance to the building or facility and the primary path of travel to the specific area of alteration, structural repair or addition and sanitary facilities, drinking fountains and public telephones serving the area.

Exceptions: When the total construction cost of the project does not exceed a valuation of \$101,200 “adjusted annually for inflation”, and the cost of providing the additional items as listed above exceeds 20% of the cost of the project, an unreasonable hardship exists. Under this condition, only 20% of the projects budget must be allocated to these accessibility features. All accessible elements that can be provided without incurring a disproportionate cost shall be provided with priority given to those features that will provide the greatest access in the following order:

- 1.1 An accessible entrance.
- 1.2 An accessible route to the altered area.
- 1.3 At least one accessible restroom for each sex.
- 1.4 Accessible telephones.
- 1.5 Accessible drinking fountains, and
- 1.6 When possible, additional accessible elements such as storage, alarms and parking.

The obligation to provide access may not be evaded by performing a series of small alterations to the area served by a single path of travel. All alterations, repairs and additions will be tracked over a three-year period and the accumulated costs will be used to determine if a disproportionate cost exists.

- ❑ In existing buildings, for projects that exceed \$101,200 in construction costs, the items listed above that are in full compliance with New building requirements must be provided, regardless of cost.
An unreasonable hardship may exist if the cost of total compliance with New building standards is disproportionate to the cost of proposed improvements; the nature of accessibility gained or would jeopardize the feasibility of the project. If a hardship exists, full accessibility must still be provided by at least equivalent facilitation. If equivalent facilitation is utilized, total compliance with new building standards may be required on future projects if the accumulated costs of improvements over a three years period exceed any disproportionate cost justifications.
- ❑ Elevator access in existing buildings are allowed the 20% disproportionate hardship provisions, regardless of cost, in the following buildings:
 - 2.1 Office buildings and passenger vehicle service stations of three stories or more and 3000 or more square feet per floor.
 - 2.2 Offices of physicians and surgeons.
 - 2.3 Shopping centers.
 - 2.4 Other buildings and facilities three stories or more and more than 3000 square feet per floor if a reasonable portion of services sought and used by the public is available on the accessible level.
- ❑ Alterations consisting only of work to improve accessibility features shall be limited to the actual work.
- ❑ Projects that consist only of heating, ventilation, air conditioning, re-roofing, electrical work, or cosmetic work, and etc., shall not be subject to initialing application of this code.

B. SITE ACCESSIBILITY CBC 1114B.1.2, 1127B & 1134B

□ Application

- A primary entrance to the building and the primary path of travel to the specific area of alteration, structural repair or addition, and sanitary facilities serving the area. 1134B.2.1
- The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site facilities and accessible entrance to the site. 1127B.1

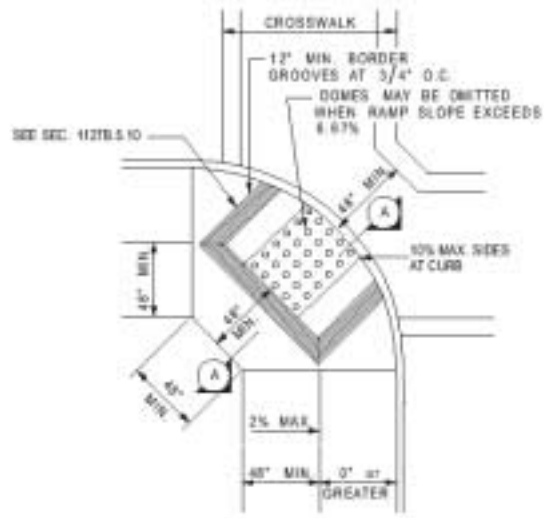
Exception: In existing buildings, these regulations shall not apply when legal or physical constraints would not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

- At least one accessible route shall be provided from public transportation stops, public streets or sidewalks, to the accessible building entrance they serve. 1114B.1.2

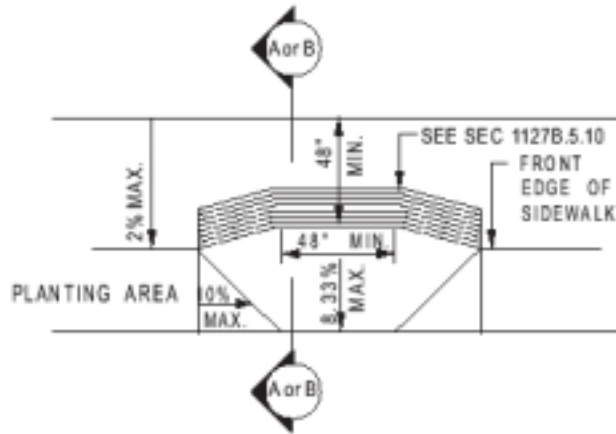
□ Accessible Signs 1127B.3: Provide directional signs at every primary public entrance and at every major junction leading to an accessible route of travel.

□ Curb Ramps 1127B.5: Shall be constructed at every corner of street intersections and where a pedestrian way crosses a curb.

- Width: 48" min.
- Finish: Stable, firm, slip-resistant, contrasting with adjacent sidewalk.
- Slope: Max. 1:12.
- Slope of adjoining area: Max. 1:20 within 4' area.
- Slope of flared sides: Max. 1:10.
- Detectable Warnings: Provide truncated domes if slope is less than 1:15 must contrast visually with adjoining surfaces.
- Grooved border: 12" wide at the top and edges.



CASE E



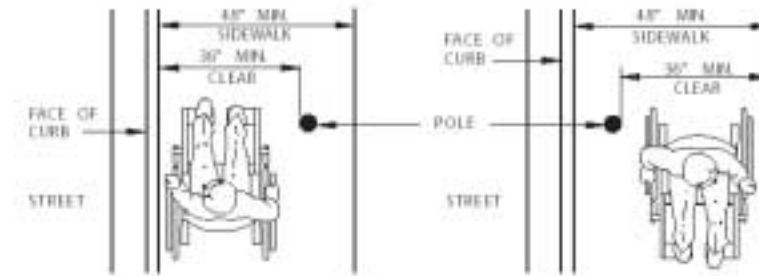
CASE F

CURB DETAILS (FIG. 11B-20C)

Note: These are just two of the possible ways to build a curb ramp. The codebook provides many other solutions.

C. WALKS AND SIDEWALKS CBC 1133B.7

- ❑ **Width:** Min. 48" (May be reduced to 36" for right-of-way restriction, natural barriers, or other existing conditions).
- ❑ **Slope:** Max. 1:20 or shall be designed as ramp.
- ❑ **Change in Level:** Max. ½ ", no step allowed.
- ❑ **Continuous Surface:** At least as slip-resistant as a medium salted finish for slope 6% or less. Slip-resistant for slope more than 6%.
- ❑ **Cross Slope:** Max. 2%.
- ❑ **Level Areas by Doors or Gates:**
 - Swing Side: 60" x 60".
 - Push Side: 48" wide x 44" deep.
 - Swing Side Strike Edge Clearance: 24".
- ❑ **Gratings:** No grating if possible. Where necessary, max. width ½" in direction of travel.

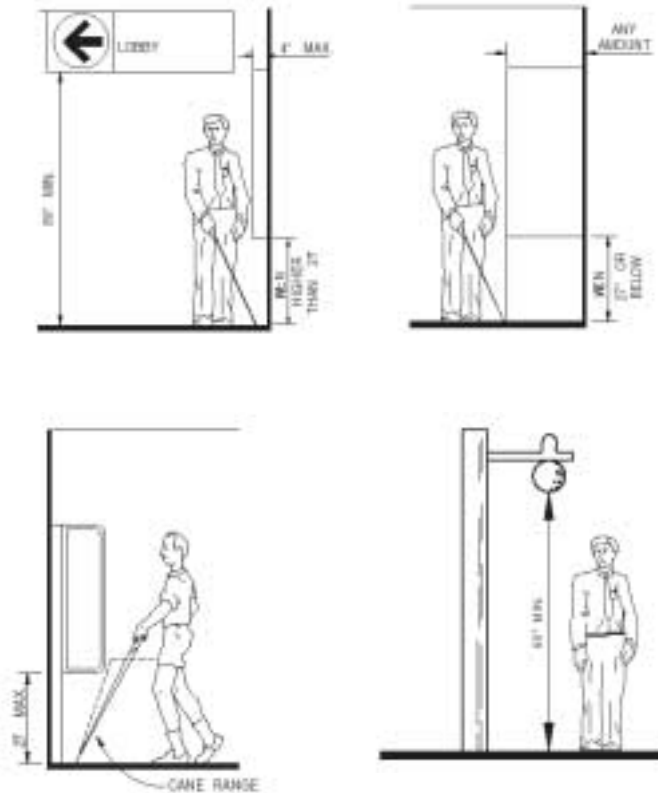


sidewalk obstructions

SIDEWALKS (FIG.11B-27)

D. UNOBSTRUCTED PATHWAYS CBC 1133B.8.

- ❑ **Warning Curbs:** Provide 6" warning curbs for abrupt changes more than 4" (not required between a walk or sidewalk and adjacent street or driveway).
- ❑ **Overhanging Obstructions:** Min. 80" above walking surface.
- ❑ **Detectable Warnings:** Provide at transit boarding platforms and where walk crosses or adjoins vehicular way not separated by curb or railings.
 - Width: 24" - 36" placed at the edge of drop-off or safe area.
 - Surface: Durable, slip-resistant material and truncated domes.
 - Color: Yellow.
- ❑ **Protruding Objects:** See 1133B.8.6.1

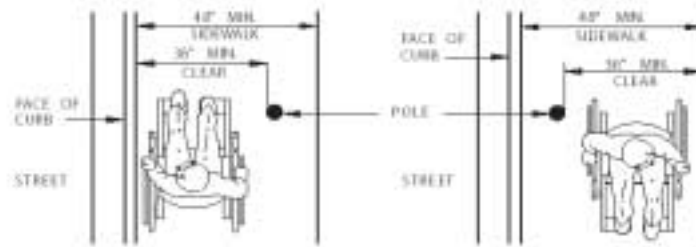


walking perpendicular to wall

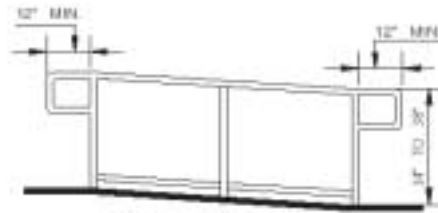
PROTRUDING OBJECTS (FIG. 11B-7A & 11B-28)

E. RAMPS CBC 1133B.5

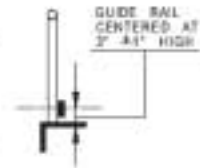
- ❑ **Ramp Design:** Any path of travel with slope greater than 5% (1:20).
- ❑ **Width:**
 - Min. 60" when serving occupant load of 300 or more.
 - Min. 48" for all others.
- ❑ **Slope:** Max. 1:12 in the direction of travel.
- ❑ **Cross Slope:** Max. 2%.
- ❑ **Surface:** Stable, firm, slip resistant.
- ❑ **Landings:** Required at top and bottom of ramp and at every 30" of rise.
 - Top Landings: Min. 60" wide and min. 60" in direction of ramp run.
 - Intermediate Landing: Min. 72" for change direction greater than 30°, 60" for straight run.
 - Bottom Landing: Min. 72" in direction of ramp run.
 - Encroachment of Doors: Doors in any position can not reduce the min. dimensions of landing to less than 42" and shall not reduce the required width by more than 3" when fully open.
 - Strike Edge for doors: 24" for exterior ramp, 18" for interior ramp.
- ❑ **Handrails:** Required for ramp slope exceeding 5%.
 - Location: On both sides, continuous for full length.
 - Extension: 12" beyond top & bottom with returned ends, unless such extension would create a hazard
 - Height: 34"–38" above ramp surface.
 - Handgrip Space: 1½" from wall.
 - Grip: 1¼" to 1½" smooth surface.
 - Structural Strength: Support Min. 250 lb. in any direction.
 - Wheel Guides: Required where ramp surface is not bounded by wall or fence and the ramp exceeds 10' in length.
- ❑ **Guardrails:** Required when ramp is more than 30" above adjacent ground.
 - Height: 42"



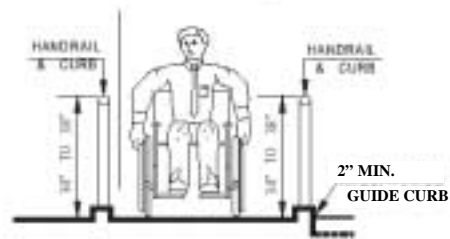
(a) SIDEWALK OBSTRUCTIONS



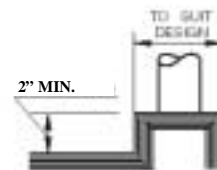
(b) GUIDE RAIL



GUIDE RAIL DETAIL

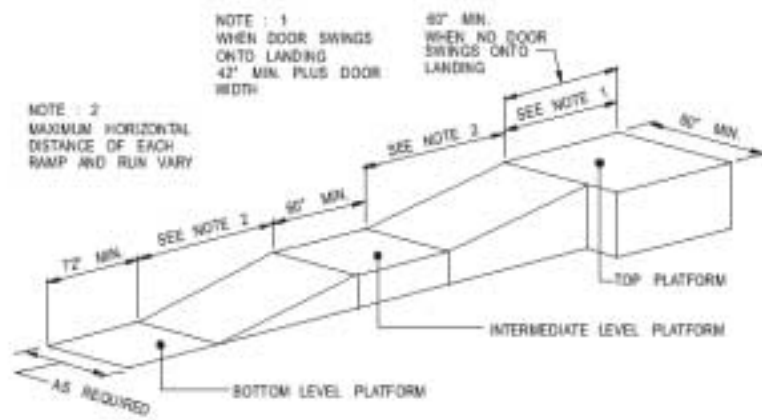


(c) WHEEL GUIDE

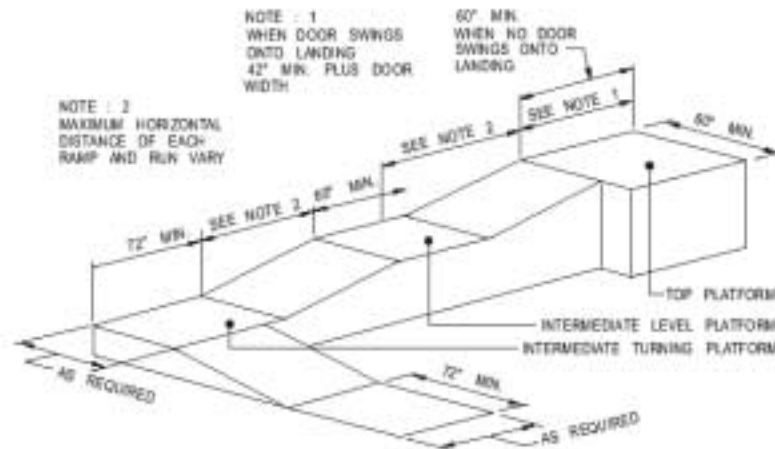


WHEEL GUIDE DETAIL

RAMP HANDRAILS (11B-27)

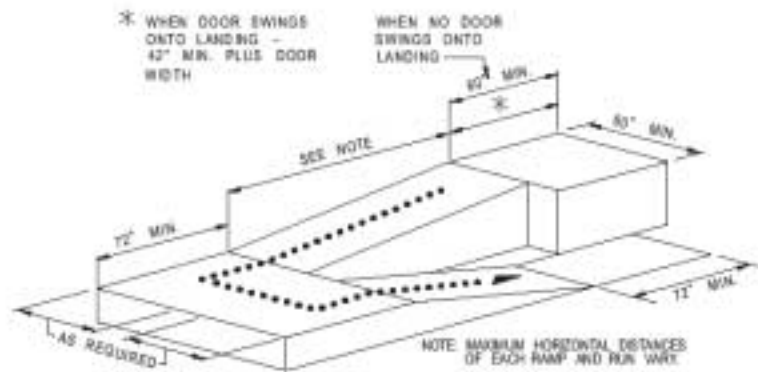


(A) STRAIGHT RAMP RUN

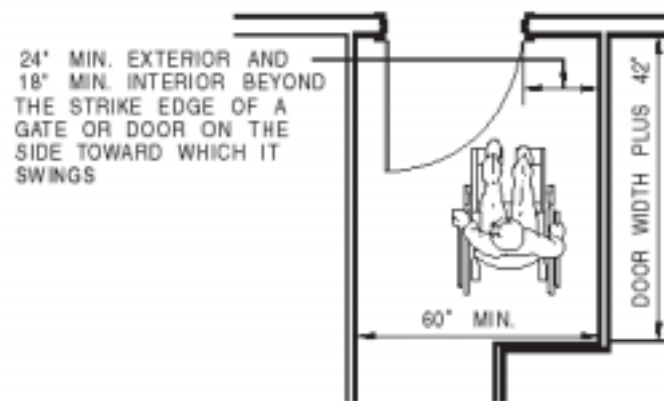


(B) RAMP WITH TURNING PLATFORM

RAMP DIMENSIONS (FIG. 11B-38)



(A) RAMP WITH INTERMEDIATE SWITCH-BACK PLATFORM



(B) RAMP LANDING AT DOORWAY

RAMP LANDING AND DOORWAY (FIG. 11B-39)

F. ACCESSIBLE PARKING CBC 1129B

□ Number:

Total Number of Parking Spaces	Minimum Required Number of Accessible Parking Spaces
1–25	1 (1 Van min.)
26–50	2 (1 Van min.)
51–75	3 (1 Van min.)
76–100	4 (1 Van min.)
101–150	5 (1 Van min.)
151–200	6 (1 Van min.)
201–300	7 (1 Van min.)
301–400	8 (1 Van min.)
401–500	9 (2 Van min.)
501–1000	2% of total (3 Van min.)
1,001 and over	20+1 for each 100, or fraction thereof over 1,001 (1 Van per 8 Access Parking)

- Outpatient Facilities: 10% accessible of total spaces.
- Facilities specialize in services for persons with mobility impairments: 20% accessible of total spaces.

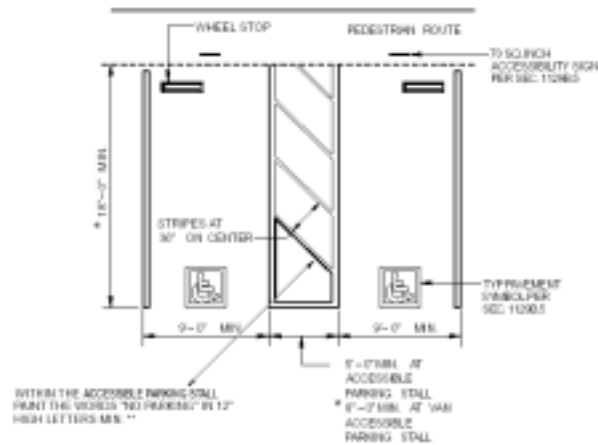
□ Sizes:

- Auto: Min. 9' wide with min. 5' loading area, min. 18' long.
- Van: Min. 9' wide with min. 8' loading area, Min. 18' long.
- Diagonal Parking Stalls: loading area need special attention in design.

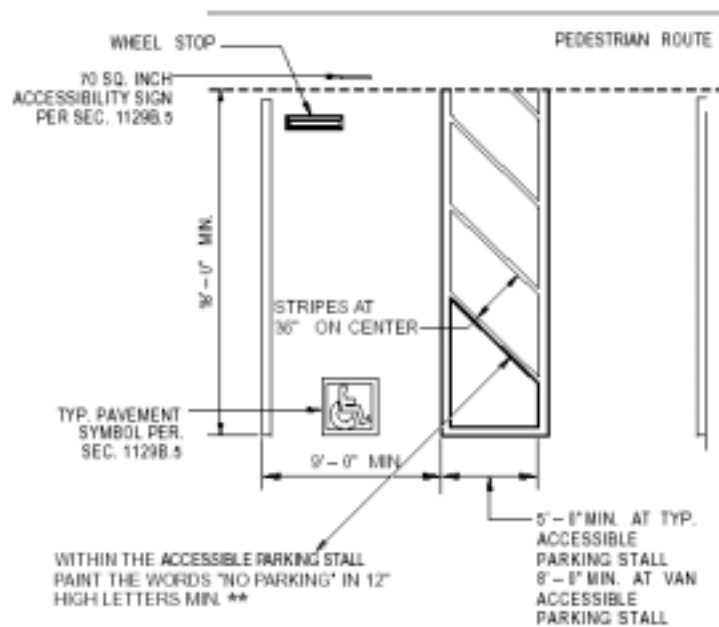
- ❑ **Surface Slope:** 2% max. in any direction.
- ❑ **Arrangement:**
 - A bumper or curb shall be provided to prevent encroachment over required walkways.
 - Parking shall be located as close as possible to accessible entries.
 - Accessible routes shall not travel behind vehicles other than their own.
 - Where multiple entrances exist, parking shall be dispersed equally.
 - Pedestrian ways shall be provided from each parking space.

Exceptions: Where an unreasonable hardship is determined, a variance or waiver may be granted when equivalent facilitation is provided.

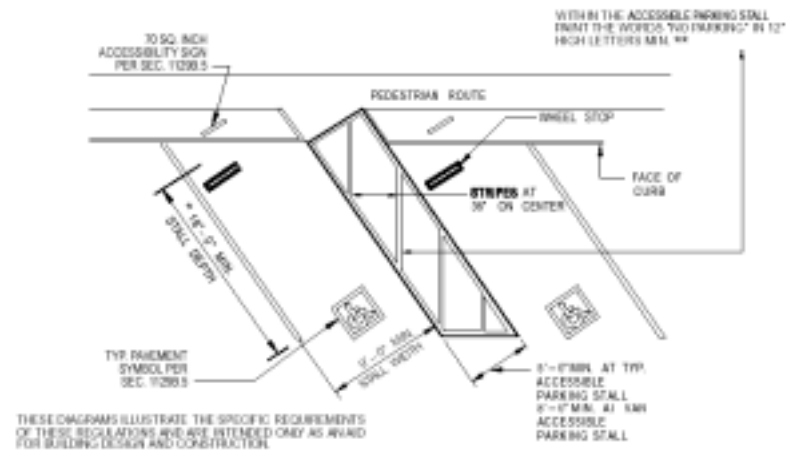
- ❑ **Signage:**
 - Reflectorized International Symbol of Accessibility at each space, min. 70" sq. (min. 80" high if in path of travel or min. 36" high at wall), and unobscured by a parked vehicle.
 - "Van accessible" sign for van spaces.
 - Parking signage is exempt if total parking space is less than 5.
 - Tow away sign with telephone # at each entrance to parking area or adjacent to accessible spaces, min. size: 17" x 22", 1" high letters.
 - "NO PARKING" painted in white letters no less than 12" high in loading area.



DOUBLE PARKING STALLS (FIG. 11B-18A)



SINGLE PARKING STALLS (FIG. 11B-18B)



DIAGONAL PARKING STALLS (FIG. 11B-18C)

G. CORRIDORS AND EXTERIOR EXIT BALCONIES 1133B.3

□ Width:

- Min. 44" serving occupant load of 10 or more.
- Min. 36" serving occupant load of less than 10.

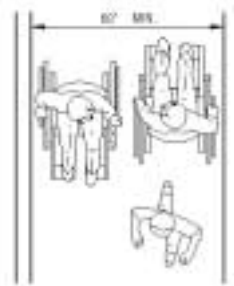
□ Corridors over 200': Provide one of the following:

- Min. 60" wide.
- At central location a min. 60" x 60" passing space.
- At central location with a tee corridor min. 44" wide.

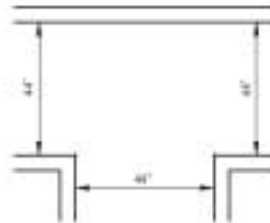
Exception: For existing buildings and facilities when unreasonable hardship exists and equivalent facilitation provided, exception may be granted.



MINIMUM CORRIDOR WIDTH



MINIMUM WIDTH FOR
CORRIDOR OVER 200'

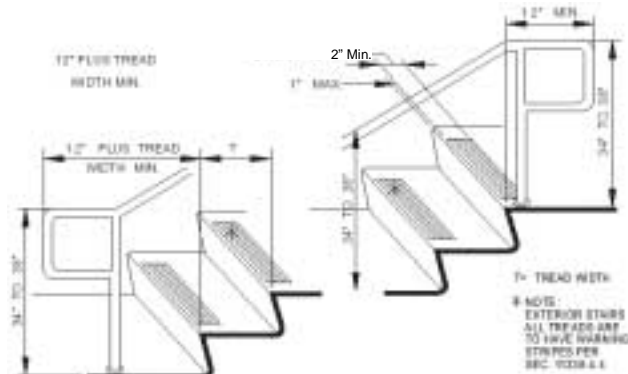


passing alcoves for corridors
over 200' in lieu of 60" min. width

CORRIDOR OVER 200 FEET (FIG. 11B-34)

H. STAIRWAYS CBC 1133B.4

- ❑ **Handrails:** On both sides of stairway.
 - Height: 34" to 38" above nosing tread.
 - Extension: 12" past top nosing and 12" + tread width beyond bottom nosing.
 - Ends: Terminate in newel post or safety terminal.
 - Handgrip Space: 1½" from wall.
 - Grip: 1¼" to 1½" cross section.
 - Edges: Rounded to min. radius of 1/8".
- ❑ **Striping:** Min. 2" color contrasting strip.
 - Outside Stairs: Upper approach and all treads.
 - Inside Stairs: Upper approach and bottom tread.
- ❑ **Treads:** Slip resistant, smooth and rounded edges at nosing, min. 11".
- ❑ **Nosing:** Max. projection 1½".
- ❑ **Risers:** Open risers not permitted, max. 7".



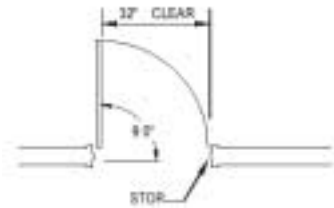
STRIPING AND HANDRAIL EXTENSIONS (FIG. 11B-35)



STAIRS (FIG. 11B-35)

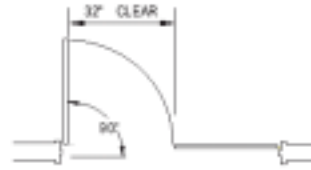
I. DOORS AND LANDINGS CBC 1133B.2

- ❑ **Minimum Width:** 32" clear (min. 3' x 6'-8" door).
- ❑ **Type of Lock or Latch:**
 - Centered between 30" to 44" above floor.
 - Operable with a single effort (lever type, panic bars, or push-pull bars).
- ❑ **Swing and opening force:**
 - Allow min. 3 second to close.
 - Exterior & Interior doors 5 lb.
 - Fire doors 15 lb.
- ❑ **Kick Plate:** Bottom 10" high smooth panel on push side of door.
- ❑ **Thresholds:** Max. height ½".
- ❑ **Strike Side Clearance:**
 - Exterior Door: 24".
 - Interior Door: 18".
- ❑ **Maneuvering Clearance at Doors:**
 - Swing Side: 60" in length in the direction of door swing.
 - Push Side: 48" in length when door has both latch and closer.
 - Push Side: 44" in length when door has no latch, no closer, and wheelchair approach to hinge side.
 - Push Side: 44" in length when door has no closer and wheelchair approach to latch side.
- ❑ **Consecutive Doors in Vestibule:** 48" in length between opened doors.



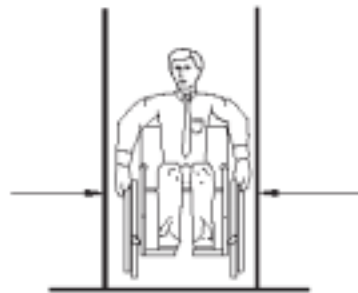
CLEAR OPENINGS MUST BE BETWEEN THE DOOR IN ITS 90° OPENING POSITION AND THE FACE OF THE STOP

(A) SINGLE DOOR



CLEAR OPENINGS FOR TWO LEAF DOORS MUST BE BETWEEN EITHER DOOR IN ITS 90° OPEN POSITION AND THE EDGE OF THE OTHER DOOR.

(B) DOUBLE DOOR



AN ADULT SIZE WHEELCHAIR AVERAGES 27 INCHES IN WIDTH. THE REQUIRED 32 INCH CLEAR OPENING ALLOWS 2-1/2 INCHES ON EACH SIDE FOR HANDS.

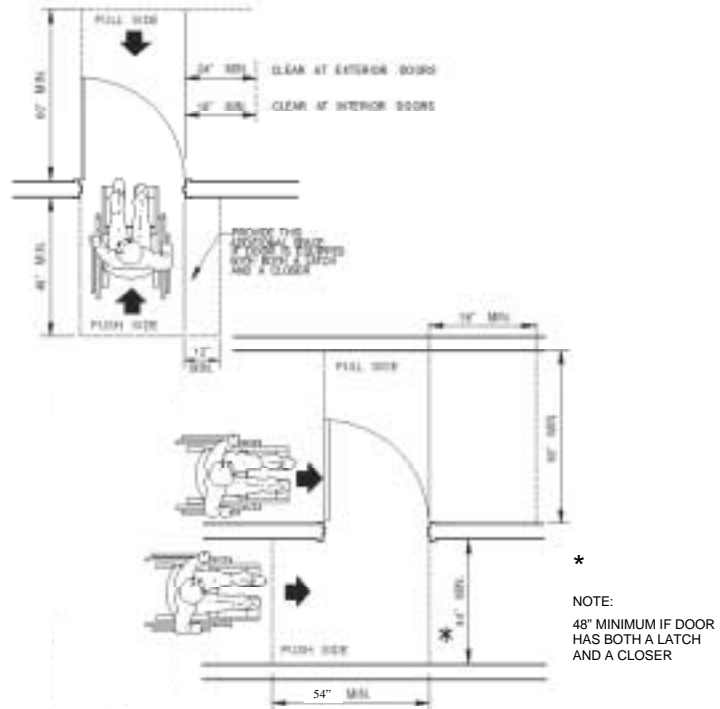
(C) PASSAGE CLEARANCE

CLEAR DOOR WIDTH (FIG. 11B-5B)

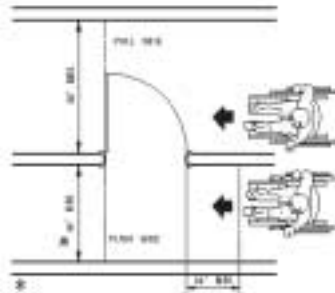


THRESHOLDS (FIG. 11B-32)

(A) FRONT APPROACH



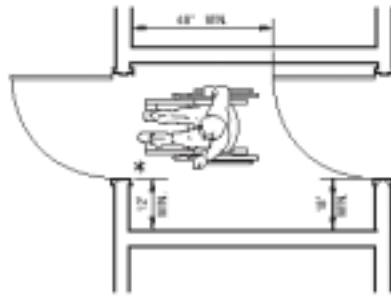
(B) HINGE APPROACH



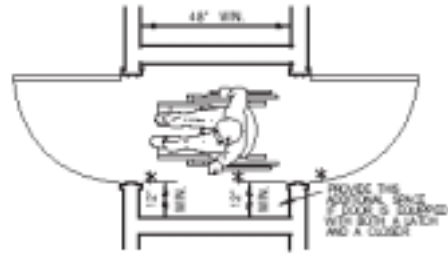
NOTE: 48" MIN. IF DOOR HAS A CLOSER

(C) LATCH APPROACH

LEVEL CLEARANCE AT DOORS (FIG. 11B-26)

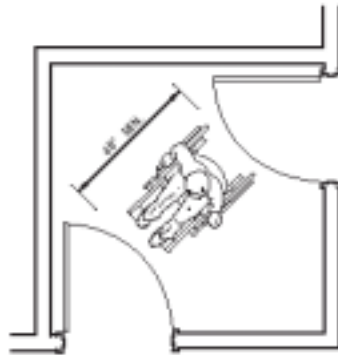


(A) DOORS IN SERIES

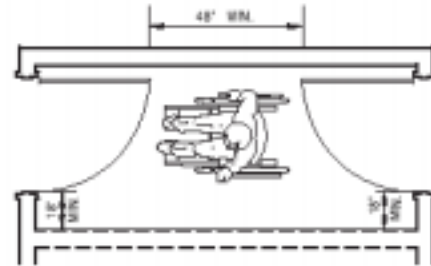


(B) BOTH DOORS OPEN OUT

VESTIBULE (FIG. 11B-30)



(A) DOORS AT ADJACENT WALLS



(B) DOORS AT OPPOSITE WALLS

VESTIBULE (FIG. 11B-31)

J. TOILET FACILITIES CBC 1115B & CPC Chapter 15

- ❑ **General:** Sanitary facilities that serve the specific area of alteration, structural repair, or addition, shall comply with these regulations.

Exceptions: In existing buildings or facilities, exception may be granted when an unreasonable hardship exists and equivalent facilitation is provided according to the following criteria:

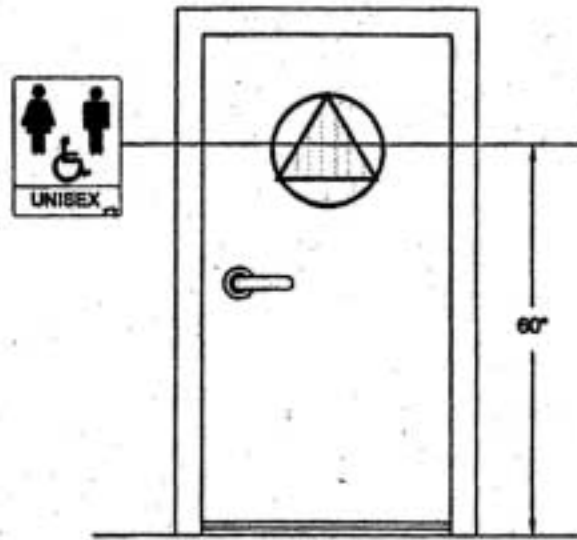
1. All sanitary facilities are not required to comply with these standards when accessible sanitary facilities are within a reasonable distance (less than 200' path of travel).
 2. Either a lateral- or front-transfer toilet stall. See Figure 11B-1C.
 3. Doors to have a cleared, unobstructed opening of at least 30".
- ❑ **Separate Facilities:** Where separate facilities are provided for non-disabled they shall be provided for disabled also.
 - ❑ **Children's Facilities:** Specific heights may be adjusted for accessibility needs of children.
 - ❑ **Passageways:** All doorways leading to accessible sanitary facilities.
 - Min. 32" clear width.
 - Min. depth of 60" on the swing side of the door.
 - Min. depth of 44" on the push side of the door.
 - Min. 24" strike edge clearance for exterior door on the swing side.
 - Min. 18" strike edge clearance for interior door on the swing side.
 - ❑ **Door Signage:**
 - Men: ¼" thick equilateral triangle with edges 12" long and vertex upward.
 - Women: A circle ¼" thick and 12" in diameter.
 - Unisex: A 12" diameter circle with a triangle superimposed on the circle.
 - Location: 60" above floor and center on the door.
 - Additional Sign:
 - Information: Raised characters, pictorial symbols with Grade 2 Braille for permanent rooms and spaces of a building per 1117B.5.
 - Location: 60" above floor to the center of the sign on wall adjacent to the latch outside of the door.

- ❑ **Grab Bars:**
 - Height: 33" above and parallel to floor (may be 36" for tank-type).
 - Side bar: Min. 42" long with 24" in front of water closet.
 - Back bar: Min. 36" long.
 - Diameter: 1¼" to 1½".
 - Strength: Min. 250 lb.
 - Handgrip space: 1½" from wall.
- ❑ **Lavatories:** Min. 1 required.
 - Clear Space: Min. 30" x 48" for front approach.
 - Wall Hung: Min. 18" from wall to centerline.
 - Rim Height: Max. 34" above floor.
 - Knee Space: Min. 29" high, 30" wide and 8" deep.
 - Toe Clearance: Min. 9" high, 30" wide and 17" deep.
 - Pipes: Insulated.
 - Faucet Controls: Max. 5 lb., lever or push type, or electronic controlled.
- ❑ **Water Closets:**
 - Seat Height: 17"–19".
 - Flush Controls: Max. 5 lb., lever or push type, located on clear side.
 - Control Height: Max. 44" above floor.
- ❑ **Urinals:** Min. 1 required.
 - Clear Space: Min. 30" x 48" for front approach.
 - Fixture Extension: Min. 14" from wall.
 - Height: Max. 17" above floor.
 - Faucet Controls: Max. 5 lb. & max. 44" high, lever or push type, or electronic controlled.
- ❑ **Toilet Tissue Dispensers:**
 - Height: Min. 19" above floor.
 - Location: On wall max. 12" from front of toilet seat.
 - Type: Continuous paper flow.
- ❑ **Mirrors:** Min. 1 with bottom edge max. 40" above floor.

- Min. one each type.
- Operable Parts Heights: Max. 40" above floor.

❑ **Lockers:** 1% and min. one shall be accessible and on a 36" clear width path of travel.





DOOR SIGNAGE

K. SINGLE ACCOMMODATION TOILETS CBC 1115B.7.2

❑ Clear Space:

- Min. 60" in diameter clear or T-shaped space per Fig. 11B-12.
- No door shall encroach into this space for more than 12".

❑ Water Closet Clear Space:

- Grab Bar Side Wall: 18" to center line of water closet.
- Other Side Wall: Min. 32" water closet to wall, 28" water closet to lavatory.
- Front of Water Closet: Min. 48".

Exception: In an existing building may have clear space min. 36" x 48" long in front of the water closet.

❑ Toilet Paper Dispenser:

- Maximum projection from wall is 4"

❑ Accessible Route: Min. 36" aisle per Fig. 11B-5E.

L. MULTIPLE ACCOMMODATION TOILETS

CBC 1115B.7.1

❑ Wheelchair Clearance:

- Dimension: 60" circle or 56" x 63" space.
- Height: From floor to 27" above floor.
- Doors other than the accessible compartment door shall not encroach more than 12".
- Doors shall not swing into the floor space required for any fixture.

❑ Number of Accessible Compartment:

- Min. one.
- Where 6 or more stalls are provided one additional stall shall be 36" wide with an outward swinging self-closing door and parallel grab bars.

❑ Aisle to Accessible Compartment:

- Min. 44" aisle width.
- Min. 48" in front of accessible compartment.

❑ Door to Accessible Compartment:

- Width: Min. 32" for end location, min. 34" for side location.
- Strike Edge Clearance: Min. 18" (not required for door with 9" clear footrest underneath).
- Closure: Self-closing.
- Handle: Loop or U-shaped below latch in flip-over, sliding, or other style not requiring grasping or twisting.

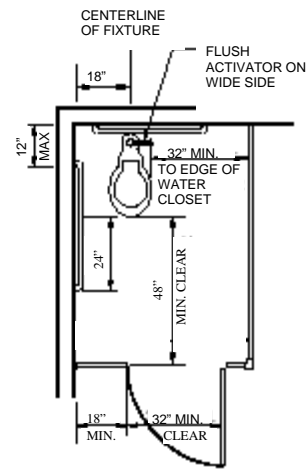
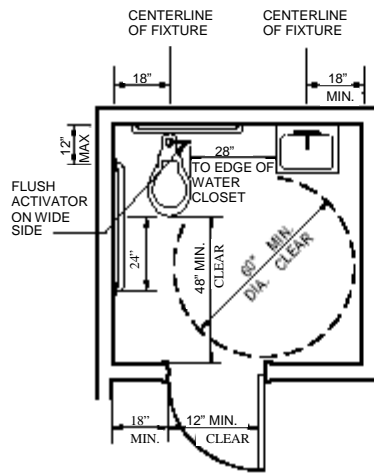
❑ Clear Space Inside Accessible Compartment:

- Grab Bar Side Wall: 18" to center line of water closet.
- Other Side Wall: 32" clear water closet to wall, 28" clear water closet to fixture.
- Front of Water Closet: Min. 60" for side opening door, min. 48" for end opening door.

Exception (CBC 111B.1): In existing building and unreasonable hardship exists, use equivalent facilitation per Fig. 11B-1C.

❑ Toilet Paper Dispenser:

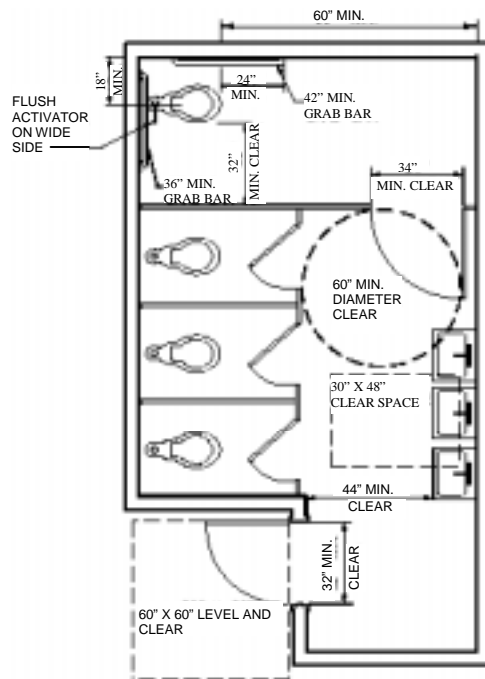
- Maximum projection from wall is 4".



SINGLE OCCUPANCY TOILET

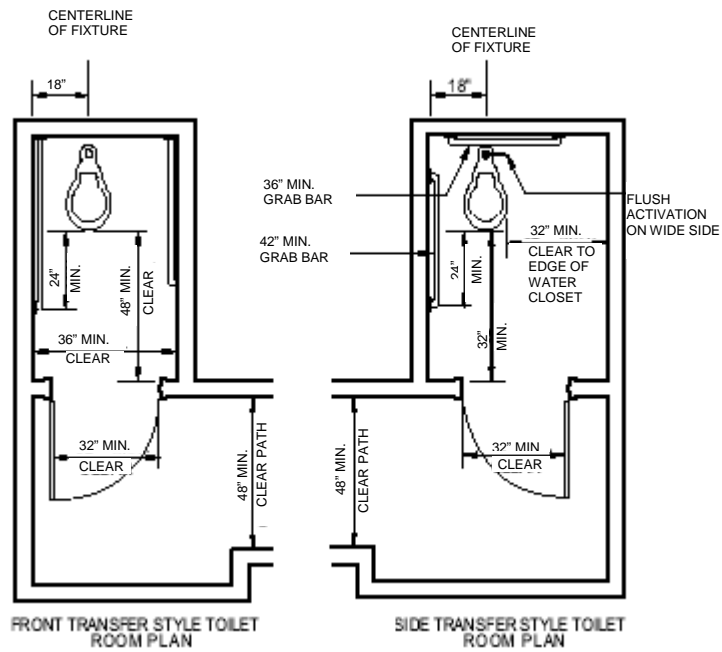
MULTIPLE TOILET STALL

(FIG. 11B-1A)



NOTE: THE ACCESSIBLE STALL DOOR MAY SWING INTO COMPARTMENT IF 60" CLEARANCE IN FRONT OF WATER CLOSET IS

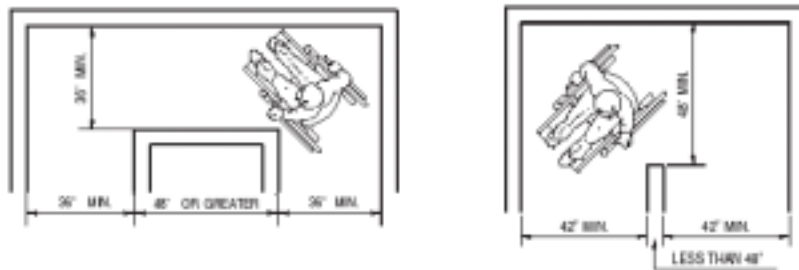
MULTIPLE ACCOMODATION TOILET (FIG. 11B-1B)



FRONT TRANSFER TOILET

SIDE TRANSFER TOILET

**EQUIVALENT FACILITATION FOR EXISTING BUILDING ONLY
(FIG. 11B-1C)**



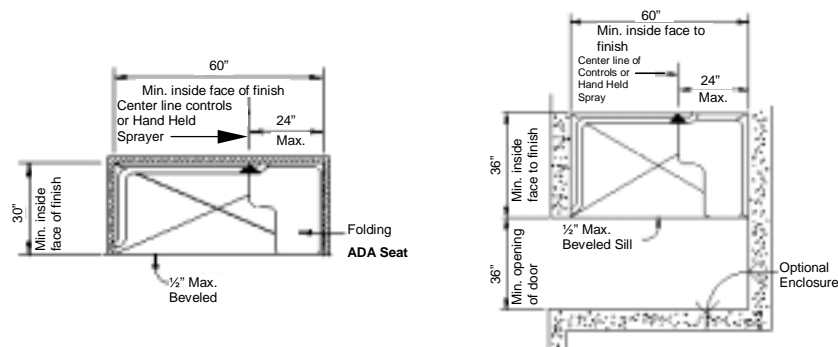
(A) 90° TURN

(B) TURNS AROUND

WIDTH OF ACCESSIBLE ROUTE (FIG. 11B-5E)

M. BATHING FACILITIES—SHOWERS CBC 1115B.6

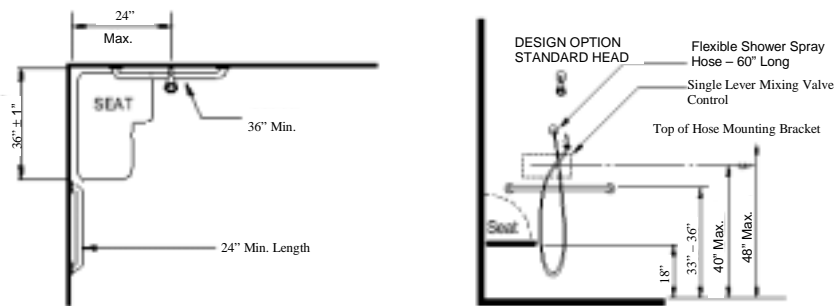
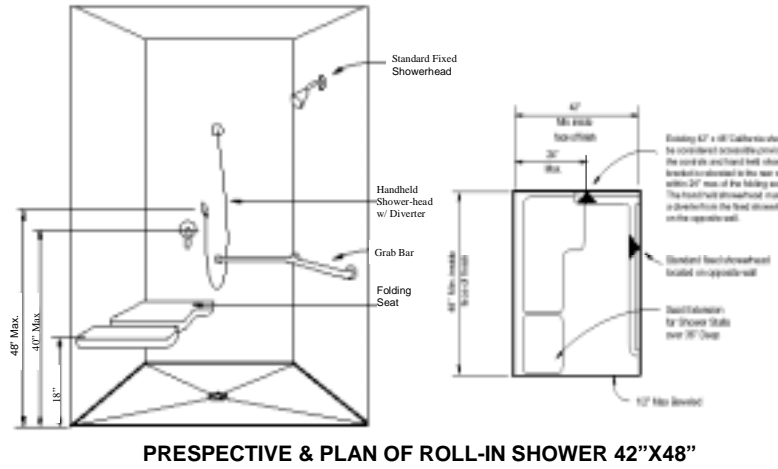
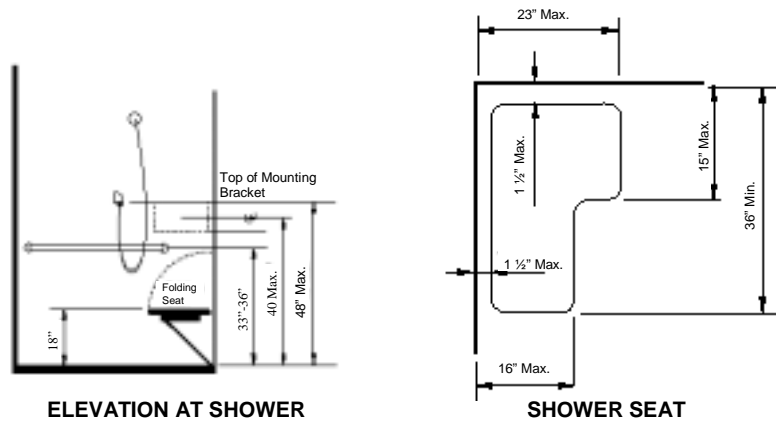
- ❑ **Application:** 1% and min. one shall be accessible.
- ❑ **Compartment Showers:**
 - Dimension: 42" wide by 48" deep with 36" wide entrance opening or 60" wide by 30" deep.
 - Thresholds: Max. ½" in height with 45° bevel.
 - Floor: Max. ¼" (2%) per foot slope, slip resistant.
 - Drain Location: Max. 6" from rear wall.
 - Seat: Full depth folding type, 18" above floor, and min. 250 lb. capacity.
 - Controls: Max. 5 lb. to operate with one hand, single lever type, max. 40" above floor.
 - Soap Dish: Located on the control wall and max. 40" above floor.
 - Grab Bars: L-shaped, mounting 33" to 36" above floor, 36" long along wall with shower head, 24" long along adjacent wall.
- ❑ **Open Showers:** Located in a corner with L-shaped grab bars and see compartment shower for other requirements.



ROLL-IN SHOWER

ROLL-IN SHOWER W/
36"X48" ENCLOSURE

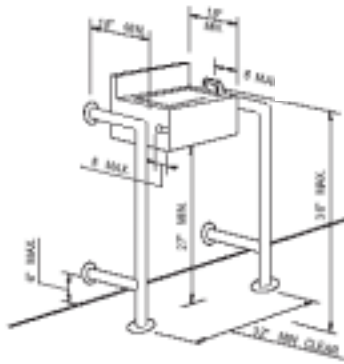
PLAN VIEWS



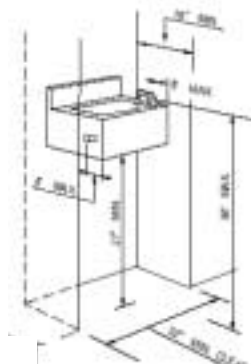
N. WATER FOUNTAINS

(DRINKING) CBC 1117B.1 & CPC 1507.0

- ❑ **Application:** Min. one to be accessible per floor, 50% for more than one. “Hi-Low” fountains shall be required. Refer to manufacturer’s or architect’s recommendation for “Hi” fountain mounting height.
- ❑ **Location:** Within alcove or not to encroach into pedestrian ways.
Exception: When hardship exists to locate in an alcove, the water fountain may project into the path of travel and identified as follows:
 - A. 1' textured border on floor beyond edges or,
 - B. Wing walls on each side extending to front of fountain, to min. 6" from floor and min. 32" clear between walls.
- ❑ **Alcove Dimensions:**
 - Width: Min. 32".
 - Depth: Min. 18".
- ❑ **Clear Space:** 30" x 48" perpendicular to fountain.
- ❑ **Clear Space Under Fountain:**
 - Depth: 18".
 - Knee Space: Min. 27" high and 8" deep.
 - Toe Space: Min. 9" high and 17" deep.
- ❑ **Bubbler:** Max. 36" above floor and min. 6" from front of fountain.
 - Water Flow: Min. 4" high and parallel to front edge.
 - Controls: Max. 6" from front edge, max. 5 lb. to operate with one hand.



(A) ALCOVE INSTALLATION

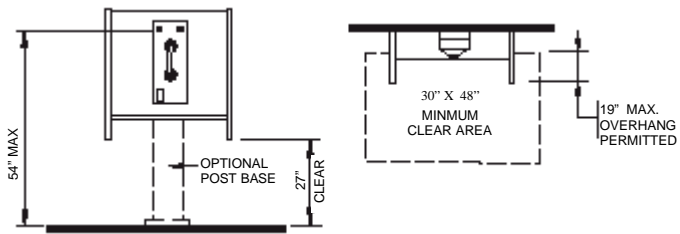


(B) WING WALL INSTALLATION

WATER FOUNTAINS (FIG. 11B-3)

O. TELEPHONES CBC 1117B.2

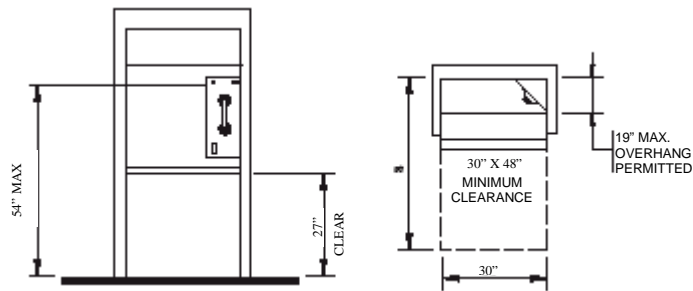
- ❑ **Application:** Minimum one or at least 50% of telephone units per floor or per bank.
- ❑ **Clear Floor Space:** 30" x 48" for either forward or parallel approach.
- ❑ **Highest Operable part:**
 - Forward Reach: Max. 48" above floor.
 - Side and Diagonal Reach: Max. 54" above floor.
- ❑ **Enclosures:** Max. overhang into clear floor space.
 - With Side Reach: The enclosure may overhang a max. 19" into clear floor space and must be min. 27" above floor.
 - With Forward Reach: When overhang is > 12", width must be > 30". If width < 30", then maintain min. 27" to floor.
 - Full-height enclosures: Min. 30" entrances.
- ❑ **Protruding Objects:** (1133B.8.6.1)
 - Max. 4" into walks, halls, corridors, passageways or aisles with a leading edge between 27" and 80".
 - Max. 12" from 27" to 80" above ground on free-standing objects mounted on posts or pylons.
 - Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.
- ❑ **Controls:** Push buttons unless not available.
- ❑ **Cord Length:** Min. 29".
- ❑ **If Telephone Books Are Provided:**
 - Forward Reach: Max. height 48".
 - Side Reach: Max. height 54".
- ❑ **Magnetic Field:** Required for each receiver.
- ❑ **Volume Control:** Min. 25% of total public phones, and one per bank, including closed circuit.
 - Amplification: 12 dbA to 18 dbA above normal. If automatic reset button is provided, max. 18 dbA may be exceeded.
 - Signage: Identified with depiction of handset radiating sound waves.
- ❑ **Text Telephones:** Min. one interior per 4 total exterior and interior public telephones in a site. Identified by the international TTY symbol and provide directional sign.



ELEVATION

PLAN

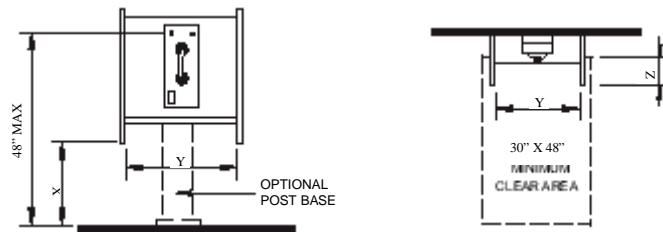
(A) SIDE REACH ARRANGEMENT



ELEVATION

PLAN

(B) FULL HEIGHT ENCLOSURE



ELEVATION

PLAN

NOTE: If $Y < 30"$ then X shall be $> 27"$

NOTE: If $Z > 12"$ then Y shall be $> 30"$

(C) FORWARD REACH ARRANGEMENT

TELEPHONE MOUNTING HEIGHTS AND CLEARANCE (FIG. 11B-4)

P. ACCESSIBLE ELEVATORS CBC Chapter 30

(CBC 1103B & 1116B.1)

- ❑ **Application CBC 1103B:** Multi-story buildings must provide access by elevator.

Exceptions:

- A. Floors not customarily occupied, such as elevator pits, piping and equipment catwalks and machinery rooms.
 - B. Multi-storied office buildings (other than the professional office of a health care provider) and passenger vehicle service stations less than 3 stories or less than 3000 sq. ft. per story.
 - C. Other buildings that are not shopping center, shopping mall, or health provider, and are less than 3 stories or less than 3000 sq. ft. per story if a reasonable portion of all facilities normally used by the public are accessible.
- ❑ **Operation and Leveling:** Automatic, self-leveling to a tolerance of $\frac{1}{2}$ ", and max. $1\frac{1}{4}$ " gap between car platform sill and edge of hoistway.
 - ❑ **Doors:** Power-operated horizontally sliding automatic doors.
 - Width: Min. 36" (may be min. 32" upon approval of Building Official).
 - Protective and Reopening Device: Device to stop and reopen door when obstructed with no contact at range 5"–29" above floor and min. 20 sec.
 - Door delay Hall Call: Min. T in sec. = $D/(1.5\text{ft/s})$.
 - Door delay Car Call: Min. 5 sec. for doors to remain fully open.
 - ❑ **Car Dimensions:**
 - Center Opening Door: Min. 80" x 54".
 - Side-Slide Opening Door: Min. 68" x 54".
 - ❑ **Car Control Button Locations:**
 - Front Approach: Max. 48" above floor.
 - Side Approach: Max. 54" above floor.
 - Emergency Controls (stop and alarm): Min. 35" above floor and adjacent to or at bottom of button panel.

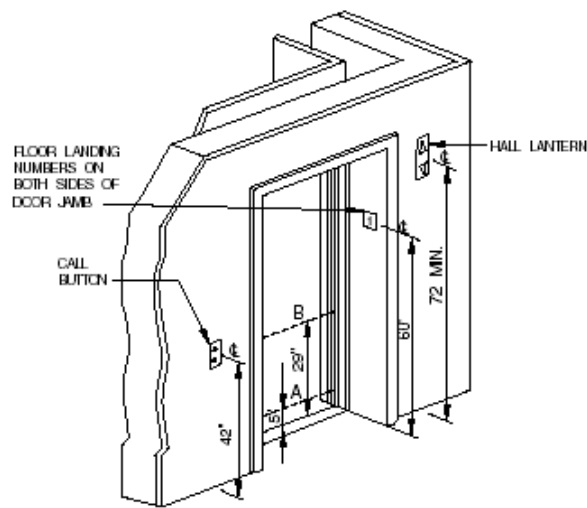
- ❑ **Car Control Button Specification:**
 - Dimension: Min. 3/4" surface, raised 1/8" \pm 1/32" above surface with square shoulders.
 - Function: Illuminated and activated by detectable mechanical motion.
 - Signage: Raised 5/8" Arabic numeral, standard alphabet character to the left of control button and a Braille symbol below the numeral button.
 - Separation: Min. 3/8" between button rows.
 - Main Entry Floor Button: Indicated by raised star left to floor button.
- ❑ **Emergency Telephone:**
 - Location: Max. 48" above floor.
 - Handset Cord Length: Min. 29".
 - Compartment Door Hardware: lever type.
 - Communication: No voice required.
- ❑ **Handrails:**
 - Location: On one wall, preferably the rear.
 - Height: 32" \pm 1" above floor.
 - Mounting: Min. 1½" from wall.
- ❑ **Call Buttons:**
 - Location: 42" above floor.
 - Button Size: Min. ¾" diameter, raised.
 - Visual Indication: Show each call registered and extinguished when the call is answered.

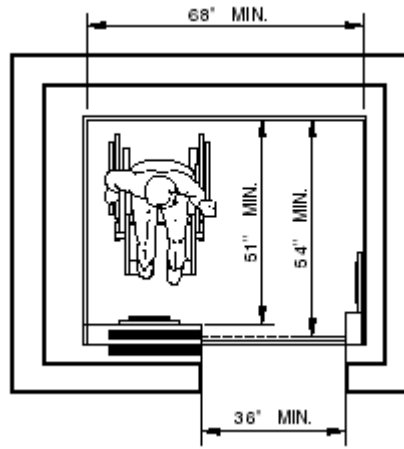
❑ **Hall Lantern:**

- Location: At each hoistway entrance, min. 6' above lobby floor.
- Information: Car arrival and direction of travel.
- Visual Signal: Preferably arrow shapes with min. 2½" x 2½" in size.
- Audible Signal: Sound once for up and twice for down.

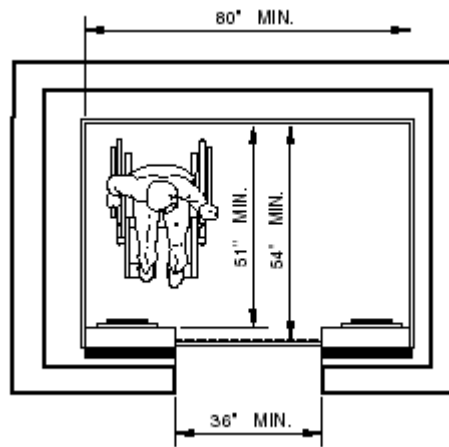
❑ **Doorjamb Marking:**

- Location: On both sides, 5' above floor, visible from within elevator.
- Information: Number of floor.
- Type: Raised Arabic numerals, min. 2" high, with raised Braille symbols on the left.



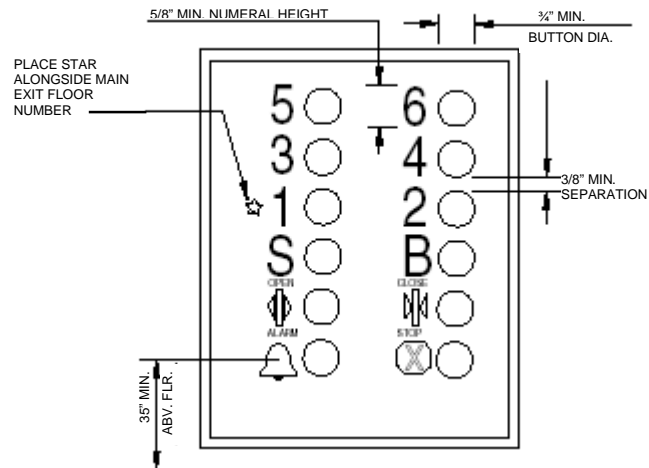


(A) SIDE OPENING DOOR

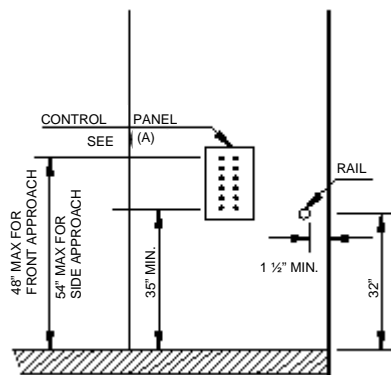


(B) CENTER OPENING DOOR

MINIMUM DIMENSIONS OF ELEVATOR CARS (FIG. 11B-40A)



(A) ELEVATOR CONTROL PANEL



(B) INSTALLATION HEIGHTS ABOVE CAB FLOOR
ELEVATOR CONTROL PANEL (FIG. 11B-40B)

Q. ELECTRICAL NEC 210-50, 380-8, & 760-9

- ❑ The general rule is for electrical receptacles, switches and alarms to be mounted within reach ranges for people in wheelchairs. Remember that all controls and operating mechanisms are to have a clear space for either front or parallel approach. Controls must be able to be operated with no more than 5 lb. and with one hand without tight grasping or twisting.
- ❑ **Center of Controls:** 15" to 48" above floor for switches, outlets, thermostats, fire alarms, or operating handles of controls intended to be used by the occupant to control lighting and receptacle outlets, appliances, or cooling, heating and ventilating equipment.

Exceptions:

- D. Receptacle outlets installed as a part of permanently installed baseboard heaters.
- E. Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.
- F. Baseboard electrical outlets used in relocatable partitions, window walls, or other electrical convenience floor outlets are not subject to the minimum height requirements.
- G. Enforcement officials shall not retroactively require fire alarm initiating devices be relocated to a 48" height.

R. EXIT SIGNS CBC 1003.2.8

- ❑ **Definition:** Visually indicates the path of exit travel within the means of egress system.
- ❑ **Required Locations:**
 - Conform to CBC Section 1003.2.8.
 - Readily visible from any direction of approach
 - As necessary to clearly indicate the direction of egress travel
 - No more than 100' from the nearest visible sign
 - Exception:
 - 1 Main exterior exit doors that obviously and clearly are identifiable as exit doors, when approved by the building official.
 - 2 Rooms or areas that require only one exit or exit access.
- ❑ **Graphics:**
 - Color and design of lettering, arrows and other symbols on exit signs shall be in high contrast with their background,
 - "EXIT" on the sign in block letter
 - 1 Height: Min. 6"
 - 2 Stroke: Min. 3/4"
 - 3 Width: Min. 2" except for the letter "I"
 - 4 Spacing: Min. 3/8"
 - 5 Letter width, stroke and spacing shall be in proportion to their height.
- ❑ **Illumination:** Exit signs shall be internally or externally illuminated.
 - External Source: Min. 5 footcandles from either of two electric lamp
 - Internal Illuminated Signs: Min.5 footcandles and be listed for the purpose.
 - Exception:
 - 1 Approved self-luminous signs that provide evenly illuminated letters that have a minimum luminance of 0.06 foot lambert.
 - 2 Approved internally illuminated exit signs which use light-emitting diodes or electroluminescent lamps are not required to have two electric lamps.

❑ **Power Source:**

- Illuminated at all times
- Continued illumination for a duration of not less than 1 ½ hours in case of primary power loss
- Connect to an emergency electrical system provided from storage batteries, unit equipment or an on-site generator set
- System shall be installed in accordance with NEC
- For high-rise buildings , see CBC Section 403.
- Exception:
 - 1 Approved self-luminous signs that provide continuous illumination independent of an external power source.
 - 2 The power supply for internally illuminated exit signs and exit path marking, which do not contain electric lamps, shall normally be provided by the premises' wiring system. In the event of its failure, power shall be automatically provided from storage batteries or an on-site generator set and the system shall be installed in accordance with NEC.

S. TACTILE EXIT SIGNS CBC 1003.2.8.6.1

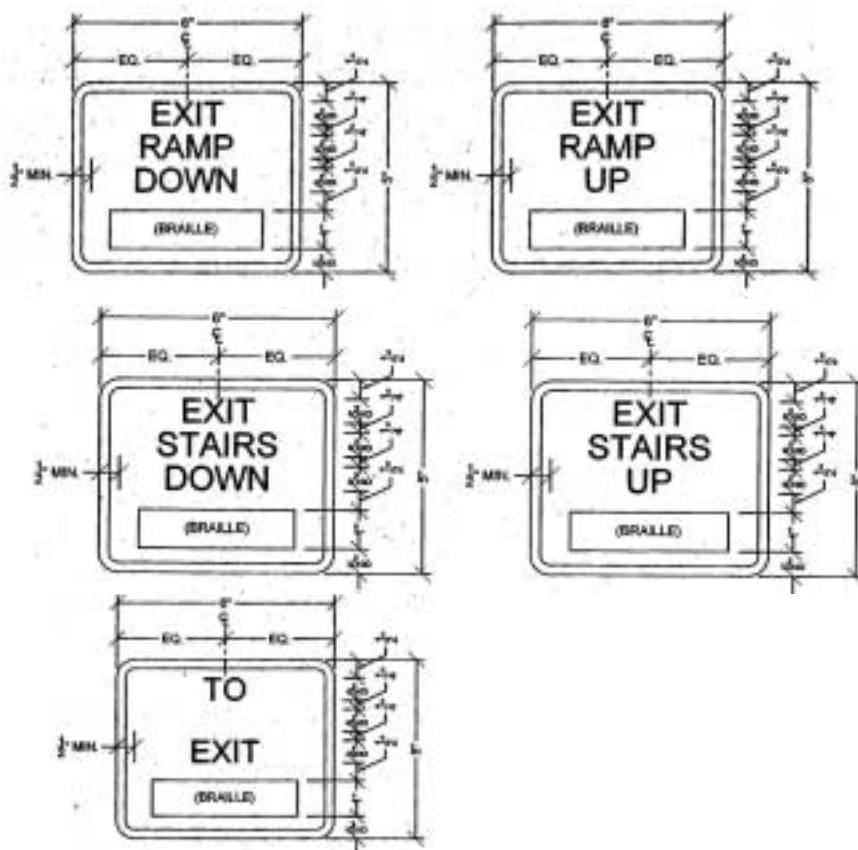
□ Signs shall comply with CBC Section 1117B.5.8.

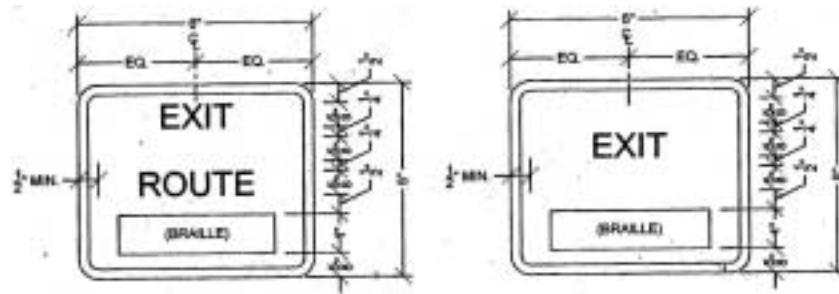
- Required Location:
 - 1 Each grade-level exterior exit door shall be identified by a tactile exit sign with the word, "EXIT".
 - 2 Each exit door that leads directly to a grade-level exterior exit by means of a stairway or ramp shall be identified by a tactile exit sign with the following words as appropriate:
 - A. "EXIT STAIR DOWN"
 - B. "EXIT RAMP DOWN"
 - C. "EXIT STAIR UP"
 - D. "EXIT RAMP UP"
 - 3 Each exit door that leads directly to a grade-level exterior exit by means of an exit enclosure or an exit passageway shall be identified by a tactile exit sign with the words, "EXIT ROUTE."
 - 4 Each exit access door from an interior room or area to a corridor or hallway that is required to have a visual exit sign, shall be identified by a tactile exit sign with the words, "EXIT ROUTE."
 - 5 Each exit door through a horizontal exit shall be identified by a sign with the words, "TO EXIT."

T. TACTILE STAIR LEVEL IDENTIFICATION SIGNS CBC 1117B.1-8

□ Requirements:

- Required at each floor level landing in all enclosed stairways in buildings two or more stories in height to identify the floor level.
- At exit discharge level, the sign shall include a raised five pointed star located to the left of the identifying floor level. The outside diameter of the star shall be the same as the height of the raised characters.
- Located approximately 5' above the floor landing immediately adjacent to the door on the strike side.
- Uninterrupted visibility when the door is in the open or closed position.





EXIT SIGNAGE

U. STAIRWAY IDENTIFICATION CBC 1003.3.3.13

□ Requirements:

- Required at each floor level in all enclosed stairways in buildings 4 or more stories.
- Shall identify stairway, roof access, floor level and upper and lower terminus of the stairway.

V. OTHER REQUIRED ACCESSIBLE FACILITIES

- ☐ **Dining and Bar Facilities CBC 1104B.5.**
 - Functional Activity.
 - Seating.
 - Food Service Aisles.
 - Tableware Areas.
- ☐ **Employee Work Area CBC 1105B.3 & 1123B.**
- ☐ **Check Stands CBC 1110B.1.3.**
- ☐ **Dressing & Fitting Rooms CBC 1110B.1.7.**
- ☐ **Theft-Prevention Barriers CBC 1110B.1.6.**
- ☐ **Automated Teller Machine (ATM) CBC 1117B.7.**
- ☐ **Fixed or Built-in Seating, Tables, & Counters CBC 1122B.**
- ☐ **Vending Machines CBC 1126B & 1117B.6.**
- ☐ **Special Access (Wheelchair) Lifts CBC 1116B.2.**
- ☐ **Public Swimming Pools Chapter 31B.**
- ☐ **Seating for Assembly Occupancies 1104B.3.**